

IN THE CLAIMS

Please amend the claims as follows:

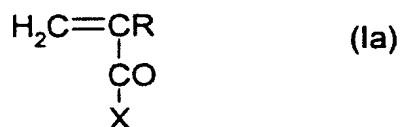
Claims 1-25 (Cancelled).

Claim 26. (Previously Presented) A polymer comprising water-soluble units and LCST units, said polymer being obtainable by reacting between reactive sites, first the water-soluble units bearing, before reaction, at least two reactive sites, and second the LCST units bearing, before reaction, at least one reactive site, to form a covalent bond therebetween, said LCST units consisting of N-vinylcaprolactam homopolymers or of copolymers derived therefrom, the proportion by weight of the LCST units in the polymer ranging from 5 % to 70 %, wherein the polymer is a block polymer comprising water-soluble blocks alternating with LCST blocks, or the polymer is a graft polymer whose backbone is formed from water-soluble units and bears LCST grafts, the polymer optionally being crosslinked.

Claim 27. (Previously Presented) The polymer according to Claim 26, in which the water-soluble units are obtained by free-radically polymerizing at least one monomer A selected from the group consisting of:

(a) (meth)acrylic acid ;

(b) vinyl monomers of formula (Ia):



wherein

R is selected from the group consisting of H, -CH₃, -C₂H₅ or -C₃H₇;

X is

(i) an alkyl oxide of the formula -OR', wherein R' is a linear or branched, saturated or unsaturated hydrocarbon-based radical containing from 1 to 6 carbons, substituted with at least one hydroxyl (-OH); primary amine (-NH₂); secondary amine

(-NHR₁) or tertiary amine (-NR₁R₂) group, with R₁ and R₂, independently of each other, representing a linear or branched, saturated or unsaturated hydrocarbon-based radical containing 1 to 25 carbon atoms, with the proviso that the sum of the carbon atoms of R₁ + R₂ does not exceed 26;

(ii) a halogen atom; or

(iii) the groups -NH₂, -NHR' and -NR'R'' in which R' and R'' are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon-based radicals containing 1 to 25 carbon atoms, with the proviso that the total number of carbon atoms of R' + R'' does not exceed 26, the said R' and R'' groups optionally being substituted with a hydroxyl (-OH); sulphonate (-SO₃); sulphate (-SO₄); phosphate (-PO₄H₂); primary amine (-NH₂); secondary amine (-NHR₁), tertiary amine (-NR₁R₂) and/or quaternary amine (-N⁺R₁R₂R₃) group, with R₁, R₂ and R₃ being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon-based radical containing 1 to 25 carbon atoms, with the proviso that the sum of the carbon atoms of R₁ + R₂ does not exceed 26, and that the sum of the carbon atoms of R₁ + R₂ + R₃ does not exceed 27;

(c) maleic anhydride;

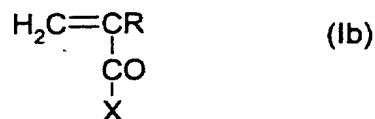
(d) itaconic acid;

(e) vinyl alcohol of the formula CH₂=CHOH; and

(f) vinyl acetate of the formula CH₂=CH-OCOCH₃.

Claim 28. (Previously Presented) The polymer according to Claim 27, wherein the water-soluble units are obtained by polymerization of at least one monomer B selected from the group consisting of:

(a) vinyl monomers of formula (Ib) below:



wherein R is selected from the group consisting of H, -CH₃, -C₂H₅ and -C₃H₇;

and

X is an alkyl oxide of the formula -OR', wherein R' is a linear or branched, saturated or unsaturated hydrocarbon-based radical containing from 1 to 6 carbons, optionally substituted with one or more of sulphonate (-SO₃⁻), sulphate (-SO₄⁻), phosphate (-PO₄H₂); and quaternary amine (-N⁺R₁R₂R₃) group, with R₁, R₂ and R₃ being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon-based radical containing 1 to 25 carbon atoms, with the proviso that the sum of the carbon atoms of R₁ + R₂ + R₃ does not exceed 27;

(b) N-vinyl lactams;

(c) vinyl ethers of the formula CH₂=CHOR in which R is a linear or branched, saturated or unsaturated hydrocarbon-based radical containing from 1 to 25 carbons;

(d) styrene and its derivatives;

(e) dimethyldiallylammonium chloride; and

(f) vinylacetamide.

Claim 29. (Withdrawn) The polymer according to Claim 26, wherein the water-soluble units are selected from the group consisting of:

(a) water-soluble polyurethanes having, before reaction, at least two reactive sites;

(b) xanthan gum;

(c) alginates and derivatives thereof;

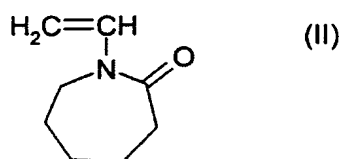
(d) cellulose derivatives;

(e) galactomanans and derivatives thereof; and

(f) polyethyleneimine.

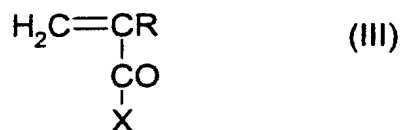
Claim 30. (Previously Presented) The polymer according to Claim 26, wherein the water-soluble units have a molar weight ranging from 5 000 g/mol to 5 000 000 g/mol when the water-soluble units constitute the water-soluble backbone of a graft polymer; or a molar weight ranging from 5 000 g/mol to 100 000 g/mol when the water-soluble units constitute a block of a multiblock polymer.

Claim 31. (Withdrawn) The polymer according to Claim 26, wherein the LCST units are N-vinylcaprolactam homopolymers of formula (II):



or copolymers of N-vinylcaprolactam and a monomer selected from the group consisting of:

(a) a vinyl monomer of formula (III):



wherein

R is selected from the group consisting of H, -CH₃, -C₂H₅ and -C₃H₇ ; and

X is selected from the group consisting of:

(i) an alkyl oxide of the formula -OR', wherein R' is a linear or branched, saturated or unsaturated hydrocarbon-based radical containing from 1 to 6 carbons, optionally

substituted with at least one halogen atom; a sulfonate($-\text{SO}_3^-$), sulphate ($-\text{SO}_4^-$), phosphate ($-\text{PO}_4\text{H}_2$); hydroxyl ($-\text{OH}$); primary amine ($-\text{NH}_2$); secondary amine ($-\text{NHR}_1$), tertiary amine ($-\text{NR}_1\text{R}_2$) or quaternary amine ($-\text{N}^+\text{R}_1\text{R}_2\text{R}_3$) group with R_1 , R_2 and R_3 being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon-based radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of $\text{R}' + \text{R}_1 + \text{R}_2 + \text{R}_3$ does not exceed 7; and

(ii) groups $-\text{NH}_2$, $-\text{NHR}'$ and $-\text{NR}'\text{R}''$ in which R' and R'' are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon-based radicals containing 1 to 6 carbon atoms, with the proviso that the total number of carbon atoms of $\text{R}' + \text{R}''$ does not exceed 7, the said R' and R'' optionally being substituted with a halogen atom; a hydroxyl ($-\text{OH}$); sulphonate ($-\text{SO}_3^-$), sulphate ($-\text{SO}_4^-$); phosphate ($-\text{PO}_4\text{H}_2$); primary amine ($-\text{NH}_2$); secondary amine ($-\text{NHR}_1$), tertiary amine ($-\text{NR}_1\text{R}_2$) and/or quaternary amine ($-\text{N}^+\text{R}_1\text{R}_2\text{R}_3$) group with R_1 , R_2 and R_3 being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon-based radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of $\text{R}' + \text{R}'' + \text{R}_1 + \text{R}_2 + \text{R}_3$ does not exceed 7;

(b) maleic anhydride;

(c) itaconic acid;

(d) vinyl alcohol of the formula $\text{CH}_2=\text{CHOH}$; vinyl acetate of the formula $\text{CH}_2=\text{CH}-\text{OCOCH}_3$;

(e) a vinyl ether of the formula $\text{CH}_2=\text{CHOR}$ in which R is a linear or branched, saturated or unsaturated hydrocarbon-based radical containing from 1 to 6 carbons; styrene or derivatives thereof;

(f) dimethyldiallylammonium chloride; and

(g) vinylacetamide.

Claim 32. (Previously Presented) The polymer according to Claim 26, wherein the molar weight of the LCST units ranges from 1 000 to 500 000 g/mol.

Claim 33. (Previously Presented) The polymer according to Claim 26, wherein the LCST units are in the form of N-vinylcaprolactam homopolymers or amino derivative copolymers.

Claim 34. (Previously Presented) The polymer according to Claim 26, wherein the proportion by weight of the LCST units in the final polymer ranges from 20 % to 65 % by weight relative to the final polymer.

Claim 35. (Previously Presented) The polymer according to Claim 26, wherein the heat-induced demixing temperature of the LCST units ranges from 5° C to 40° C, for a concentration by weight in water of 1 % by weight of said LCST units.

Claim 36. (Previously Presented) The polymer according to Claim 26, having a solubility in water, at 20°C, of at least 10 g/l.

Claim 37. (Previously Presented) A thickened, or gelled, transparent aqueous composition having a maximum light transmittance value, irrespective of the wavelength ranging from 400 to 800 nm, through a sample 1 cm thick, of at least 80 % prepared from the polymer of Claim 26.

Claim 38. (Previously Presented) An aqueous composition comprising at least one polymer according to Claim 26, and an aqueous phase.

Claim 39. (Previously Presented) The composition according to Claim 38, wherein the polymer is present in an amount ranging from 0.01 % to 20 % by weight.

Claim 40. (Previously Presented) The composition according to Claim 38, comprising a cosmetically or dermatologically acceptable medium.

Claim 41. (Previously Presented) A cosmetic for making up and/or caring for keratin materials comprising the aqueous composition of Claim 38.

Claim 42. (Withdrawn) The polymer according to Claim 29, wherein the water-soluble units are water-soluble polyurethanes and which bear carboxylic acid functional groups.

Claim 43 (Withdrawn) The polymer according to Claim 29, wherein the water-soluble units are alginate derivatives which is propylene glycol alginate.

Claim 44 (Withdrawn) The polymer according to Claim 29, wherein the water-soluble units are cellulose derivatives which are one or more of carboxymethylcellulose, hydroxypropylcellulose, hydroxyethylcellulose and quaternized hydroxyethylcellulose.

Claim 45 (Withdrawn) The polymer according to Claim 29, wherein the water-soluble units are galactomanan derivatives, which are one or more of Konjac gum, guar gum, hydroxypropylguar, hydroxypropylguar modified with sodium methylcarboxylate groups and hydroxypropyltrimethylammonium guar chloride.

Claim 46. (Currently Amended) The polymer according to Claim 33, wherein the units with an LCST are in the form of amino derivative copolymers with N-vinylcaprolactams and wherein the amino derivative are one or more of a monoamino

derivative copolymer with N-vinylcaprolactam, a diamino derivative copolymer with N-vinylcaprolactam, and a triamino derivative copolymer with N-vinylcaprolactam.

Claim 47. (Previously Presented) The polymer according to Claim 34, wherein the proportion by weight of the LCST units in the final polymer ranges from 30 % to 60 % by weight relative to the final polymer.

Claim 48. (Currently Amended) The polymer according to Claim 35, in which the heat-induced demixing temperature of the LCST units ranges from 10°C ~~and~~ to 35°C, for a concentration by weight in water of 1 % by weight of the said LCST units.

Claim 49. (Previously Presented) The polymer according to Claim 36, having a solubility in water, at 20°C, of at least 20 g/l.

Claim 50. (Previously Presented) The polymer according to Claim 26, wherein the polymer is comprised of acrylic acid units as water-soluble monomer units and N-vinylcaprolactam as LCST units.

Claim 51. (Previously Presented) The thickened transparent aqueous composition according to Claim 37, which has a maximum light transmittance value of at least 85 %.

Claim 52. (Previously Presented) The composition according to Claim 38, in which the polymer is present in an amount ranging from 0.05 % to 15 % by weight.

Application No. 10/070,910

Reply to Office Action of September 20, 2005

Claim 53 (Previously Presented) The composition according to Claim 26, wherein the polymer is a linear polymer.